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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,488	03/25/2004	Jang Geun Oh	LT-0050	5724

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EXAMINER	
WEINMAN, SEAN M	

ART UNIT	PAPER NUMBER
2115	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/808,488	OH, JANG GEUN	
	Examiner	Art Unit	
	Sean Weinman	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-33 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-33 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 25 March 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 8/30/05 9/20/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-33 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

Claims 5, 24, and 30-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the C3 or C4 state" in line 3 of the respective claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "the C3 or C4 state" in line 4 of the respective claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "an audio device" in line 8 of the respective claim. It is unclear whether this is intended to be the same as or different from the "audio device" in line 2 of the respective claim. Additionally, Claim 30 recites the limitation "an USB device" in line 8 of the respective claim. It is unclear whether this is intended to be the same as or different from the "USB device" in line 2 of the respective claim.

Any claim not specifically addressed above is being rejected as incorporating the deficiencies of claim upon which it depends.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Lam (US Patent No. 6,968,468).

As per claims 1 and 12, Lam teaches the claimed invention comprising:

A method for managing power in a computer system, comprising:

checking whether a prescribed device is in use *(Col. 2 lines 46-59 and Col. 9 lines 30-42 The audio subsystem is outputting data from the buffer to the real time application output device.)*;

identifying a power management state of a CPU *(It is inherent that the CPU has a power management controller to identify the current power state of the CPU in order the CPU to change its power state)*; and

forcing the power management state of the CPU to enter a prescribed power saving state when the prescribed device is in use according to the identified power management state *(Col. 2 lines 46-59 and Col. 9 lines 30-42).*

As per claims 2, 13, and 22, Lam teaches the claimed invention comprising:

The method of claim 1, wherein the prescribed device is an audio device or a USB device *(Col. 4 lines 50-63).*

As per claim 3, Lam teaches the claimed invention comprising:

The method of claim 2, wherein a filter driver has a packet monitoring function for said checking whether the prescribed device is in use *(It is inherent that there must be a packet monitoring function in order for the system to track the data in the buffer and the transfer of data to the real time application output device.)*

As per claims 4, 14, 23, and 32, Lam teaches the claimed invention comprising:

The method of claim 3, wherein the filter driver detects an IRP (In/Out Request Packet) outputted from the prescribed device to check whether the prescribed device is in use *(It is inherent that there must be a packet monitoring function in order for the system to track the data in the buffer and the transfer of data to the real time application output device.)*

As per claim 5, Lam teaches the claimed invention comprising:

The method of claim 4, wherein said forcing the power management state of the CPU to enter the prescribed power saving state includes the filter driver forcing the power management state of the CPU to enter the C3 or C4 state as the prescribed power saving state when the power management state of the CPU is a C1 or C2 state, wherein the power states are determined in an ACPI (Advanced Configuration and Power Interface) standard, and wherein the filter driver directly transitions the power management state of the CPU independently of an operating system *(Col. 5 lines 7-15 and 46-58 and Col. 6 lines 53-63)*.

As per claims 6 and 15, Lam teaches the claimed invention comprising:

The method of claim 1, wherein the power management state remains unchanged when the prescribed device is not in use *(It is inherent that when the prescribed device is not in use then the power state will not change)*.

As per claims 7, 16, and 25, Lam teaches the claimed invention comprising:

The method of claim 1, wherein the prescribed power saving state is a C3 or C4 state defined in an ACPI (Advanced Configuration and Power Interface) standard *(Col. 5 lines 7-15 and 46-58 and Col. 6 lines 53-63).*

As per claims 8 and 17, Lam teaches the claimed invention comprising:

The method of claim 7, wherein said forcing the power management state of the CPU to enter the prescribed power saving state includes forcing the power management state of the CPU to enter the C3 or C4 state as the prescribed power saving state if the power management state of the CPU is a C1 or C2 state defined in the ACPI standard *(Col. 5 lines 7-15 and 46-58 and Col. 6 lines 53-63).*

As per claims 9 and 18, Lam teaches the claimed invention comprising:

The method of claim 7, wherein said forcing the power management state of the CPU to enter the prescribed power saving state includes maintaining the power management state of the CPU unchanged if the ACPI standard power management state of the CPU is a C0 state or the C3 or C4 state *(Col. 5 lines 7-15 and 46-58 and Col. 6 lines 53-63).*

As per claims 10, 19, and 28, Lam teaches the claimed invention comprising:

The method of claim 1, wherein said forcing the power management state of the CPU to enter the prescribed power saving state comprises:

establishing a prescribed delay interval of time;

re-checking whether the power management state has entered the prescribed power saving state after the prescribed delay interval has passed; and

forcing the power management state of the CPU to enter the prescribed power saving state when the re-checked power management state is not the prescribed power saving state *(It is inherent that the system would check to whether the CPU has enter the power saving state in order for the CPU to optimize the power savings .*

As per claims 11, 20, and 29, Lam teaches the claimed invention comprising:

The method of claim 1, wherein said forcing the power management state of the CPU to enter the prescribed power saving state comprises:

initializing a countdown value;

re-checking whether the power management state has entered the prescribed power saving state; and

reducing the countdown value by one and repeating said re-checking unless the power management state is the prescribed power saving state until the countdown value is zero; and

forcing the power management state of the CPU to enter the prescribed power saving state when countdown value is zero and the re-checked power management state is not the prescribed power saving state *(It is inherent that the system would check to whether the CPU has enter the power saving state in order for the CPU to optimize the power savings).*

As per claims 21 and 30, Lam teaches the claimed invention comprising:

A computer system, comprising:

a CPU *(Figure 1 Reference character 100);*

an operating system configured to set a power management state of the CPU in the computer system while dividing the power management state into a multi-step operating state and power saving state *(Col. 5 lines 7-15 and 46-58 and Col. 6 lines 53-63)*;

at least one prescribed device *(Figure 1 Reference character 120)*; and

a filter driver configured to transition the power management state of the CPU to a prescribed power saving state according to a current power management state and a status of the prescribed device *(Col. 2 lines 46-59, Col. 5 lines 7-15 and 46-58, Col. 6 lines 53-63, and Col. 9 lines 30-42 It is inherent that there must be a packet monitoring function in order for the system to track the data in the buffer and the transfer of data to the real time application output device).*

As per claims 24 and 33, Lam teaches the claimed invention comprising:

The computer system of claim 21, wherein the filter driver maintains the current power management state of the CPU unchanged when the status of the prescribed device is not in use, and wherein the filter driver maintains the current power management state when the CPU is in a C0 state or the C3 or C4 state defined in an ACPI standard *(Col. 5 lines 7-15 and 46-58 and Col. 6 lines 53-63 It is inherent that when the prescribed device is not in use then the power state will not change).*

As per claim 26, Lam teaches the claimed invention comprising:

The computer system of claim 25, wherein the filter driver forces the current power management state of the CPU to be set to the prescribed power saving state when the status of the prescribed device is checked to be in use and the CPU is in a C1 or C2 state defined in the ACPI standard (*Col. 2 lines 46-59, Col. 5 lines 7-15 and 46-58, Col. 6 lines 53-63, and Col. 9 lines 30-42).*

As per claims 27 and 31, Lam teaches the claimed invention comprising:

The computer system of claim 26, wherein the filter driver directly transitions the current power management state of the CPU independent of the operating system *(Col. 5 lines 46-58 It is*

inherent that processor circuit is able to select one its four power states to reduce the power of the system).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Weinman whose phone number is (571) 272-2744. The examiner can normally be reached on Monday-Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sean Weinman
Examiner
Art Unit 2115

CHUN CAO
PRIMARY EXAMINER